

Socioeconomic Research & Policy Priorities

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Findings

- Information technology can significantly improve the flow of information to all people and institutions in the Nation, and can thus be a powerful tool for *democratization*, *equity*, and *access*.

However, to achieve the potential, we need:

- concrete objectives, and
- comprehensive metrics.

Careful research is needed to measure the effects of the transformations against the objectives, and we must develop appropriate policies based on knowledge gained from the research.

Findings

- Problems are arising from the increasing pace of information technology-based transformations. They will continue to arise in the near-term and long-term. To realize the promise of the new technologies, we must invest in research to identify, understand, anticipate, and address these problems.

Findings

- Speculation about the causes and effects of information technology on our society is occurring in the absence of solid, empirical research and data. We need better data on social and economic issues related to IT transformations to inform future policy decisions. The research should be broad-based, long-term, and large-scale, considering its promise for continuing the beneficial transformation of our society and economy.

Equity and Access

- **Finding #1:**

All of our citizens must have access to information technology.

- **Finding #2:**

Full participation in information technology research requires access to high-bandwidth connectivity.

Workforce

- **Finding #1:**

The supply of information technology workers does not meet the current demand.

- **Finding #2:**

A diverse workforce literate in information technology is critical for ensuring that our Nation is prepared to meet the challenges and opportunities of the Information Age.

- **Finding #3:**

Both K-12 and post-secondary education are inadequate to meet the challenges of the information age.

Privacy

- **Finding #1:**

The use of information technology—in particular the growing popularity of the Internet and the emergence of global commerce—has introduced a series of important and complex policy issues related to privacy.

Recommendations

- **Overarching Recommendation:**

Expand Federal initiatives and government / university / industry partnerships to increase information technology literacy, education, and access.

Recommendations

- Fund information technology research on socioeconomic issues.

Possible areas:

- Transformations of social institutions.
- Governance.
- Electronic commerce research.
- Social and economic simulation and modeling.
- Sustainable use of large information infrastructures.
- Electronic groups and communities research.
- Barriers to information technology diffusion.
- Human interaction and communication laboratories.
- Digital government.
- Development of a national information infrastructure to support research on social and economic issues.

Recommendations

- Support, develop, and fund programs to extend high-bandwidth connectivity and its benefits to ethnic, small, and geographically remote research and educational institutions.

Goals:

- Continue the NSF “Connections” grant program
- Continue the EPSCoR program to supplement funds awarded through the NSF Connections program
- Devise a special EPSCoR program for hardware upgrades
- Increase PACI funding to provide technical assistance to EPSCoR universities
- Enhance programs to support the connectivity of universities which are small or have large enrollments among minority students, but which are NOT competitive for the research-oriented “Connections” program.
- Strive for high-bandwidth connectivity in every state.

Recommendations

- Strengthen the ties between information technology and education.
- Accelerate and expand governmental and corporate investments in anytime, anywhere education and training in information technology. To the extent allowed under antitrust policy, facilitate formation of information technology industry/education consortia for this purpose.

Recommendations

- Expand the participation of underrepresented minorities and women in computer and information technology careers.
- Expand Federal research into privacy issues arising from information technology.

Budget Recommendation

- **Increase current funding for socioeconomic research over fiscal years 2000-2004.**
 - Ramp up to \$100 million over five years
 - Year #1: \$30 million
 - \$10 million to fund more socioeconomic research
 - workforce data collection and multidisciplinary socioeconomic research
 - enabling technology centers at \$3-5 million each
 - \$10 million to increasing research on educational technologies.
 - \$10 million –increasing participation in engineering and science